

Community Horticulture Fact Sheet #17 Saving Seed/Heirloom Vegetables

Scientists have now devised ways to remove specific genes from one plant and insert them into another. They call it genetic engineering. The goal, of course, is to transfer some desirable characteristic. They are messing with Mother Nature, but it was inevitable that someone would apply technology to do something our ancestors have been doing for centuries.

People have always wanted the “best” vegetable, whatever that happened to mean in their mind. When agriculture started, people chose seed from the wild plants that had the characteristics they wanted. Each year they saved seed from the plants in their fields that showed these desirable traits. Because of differences in geography, tastes, etc., many races of the same vegetables were developed.

In many other countries today and in ours a few generations back, it is or was common for gardeners to save their own seed. You may know someone who has continued this tradition. Its fun, easy and there is a special feeling that comes from closing the circle, growing from seed to seed.

Gardeners save seed from open-pollinated varieties, meaning plants that are pollinated naturally by insects or wind. Open-pollinated plants generally have characteristics that are stable and reliably reproduce similar plants the following year, as long as you prevent cross-pollination.

Hybrids are created by careful cross-pollination of two different varieties, each possessing desirable characteristics. Seeds from hybrids rarely “come true” or produce plants like the parents, so are not suitable for saving.

Hybrids are often tough, vigorous, uniform, productive plants. They are bred for traits important to commercial growers: uniform maturity; ability to withstand machine harvesting;

good post-harvest storage life. (Taste is not usually the highest priority.) These characteristics may be the opposite of what gardeners consider desirable.

How to save seed

First of all, start with an open-pollinated crop. Herb seeds, including cilantro (called coriander in seed form), dill, basil and parsley, are valuable and easy to save. Don’t worry about the next generation; there are no hybrids to cause concern. Common open-pollinated vegetable crops include peas, beans, lettuce, and radish.

Many tomatoes, squash, cucumbers, broccoli, spinach, beets, carrots, corn, etc. are hybrids these days. Often hybrids have the designation F1 with their name. Seed catalogs and seed packets usually have this information in the crop descriptions. Actually, they brag about hybrids, since the seed is more costly to produce. If the description doesn’t say it’s a hybrid, you can assume it’s open-pollinated.

The second factor to consider is whether there is a chance that cross-pollination between two kinds of the same crop might give you seed that doesn’t come true. (Yes, there is a chance that the cross will produce something wonderful, but the odds are pretty poor.) You will be safe with self-pollinated vegetables, but wind and bee-pollinated ones are risky unless you only grow one cultivar of that crop and your neighbors don’t garden. (Some gardeners grow one crop in their front yard and one behind the house and get by.)

Crops that are mainly self-pollinated include beans, peas, lettuce, tomatoes, peppers and eggplant. Those normally cross-pollinated include all the brassicas or cole family (cabbage, broccoli, mustards, collards, kale, kohlrabi, cauliflower, turnips, radishes and Brussels sprouts,) the cucurbit or squash family (zucchini and other summer squash, winter squash, pumpkins, cucumbers and melons,) carrots, parsnips, beets,

chard, spinach and corn. Cultivars of all these latter crops cross readily with others of their kind. Some will even cross with cousins (i.e. cabbage & cauliflower or zucchini & acorn squash) if they bloom at the same time.

When saving seed, select a strong, healthy plant to produce the seed. Let the plant or fruit fully mature. If it is a fruiting plant, let the fruit get over-ripe, then pick and remove seeds. For slimy seeds (e.g. tomatoes) squeeze the seedy juice into a jar and add a little water. Let it sit for a few days until the gunk looks really awful. Scrape off the moldy pulp, rinse off the juice and dry the seed on a paper towel.

Peas, beans and corn should turn yellow and begin to dry on the vine or stalk. (This is often difficult with the Northwest's rainy fall weather.) Pick out the seeds and let them dry in a dark, warm (not hot), well-ventilated area.

For lettuce, spinach, herbs, cole crops, etc. the seed heads form after the blossoms die. (Remember, some crops such as carrot, cabbage and beets are biennial and don't flower until the second year. They must be left through winter to get seed.) As the seed ripens (it usually gets darker), cut it and hang it to dry. Sometimes it's best to put the stalks, pods, or shelled seed in a paper or cloth bag, to contain the seed and yet allow air circulation.

When the seeds are dry, wrap in paper or envelopes, label them, and then store in a dark, dry, cool location. For each 10 degrees you reduce the temperature down to freezing, you double the life of the seed.

Heritage Seed

You may want to grow a heritage variety someone else has developed. Growing and saving seed from old varieties, we preserve a wonderful genetic diversity. Being able to choose from 150 different tomatoes, rather than only 10-12, feels good. Besides, who can resist 'Lazy Wife' pole beans, 'DeerTongue' or 'Grandpa Admires' lettuce or 'Radiator Charlie's Mortgage Lifter' tomato?

Many varieties of vegetables grown by our ancestors have been lost because no one was willing to save seed. For some reason, we are quite concerned about loss of biodiversity in the rain forest, but appear unconcerned about loss of biodiversity in our own gardens.

There are several seed companies that specialize in heirloom seeds and seed exchanges in which people who collect seed are put in touch with others who collect seed for exchange and for sale. Bigger seed companies still carry some open-pollinated cultivars, too.

- Seed Savers Exchange, 3094 North Winn Rd., Decorah, IA 52101
- Abundant Life Seed Foundation, PO Box 279, Cottage Grove, OR 97424
- Bountiful Gardens, 18001 Shafer Ranch Rd., Willits, CA 95490
- Seed Blum, Idaho City Stage, Boise, ID 83706
- Seeds of Change, 3209 Richards Ln., Santa Fe, NM 87507
- Southern Exposure Seed Exchange, PO Box 460, Mineral, VA 23117

Develop a strain of your own! Buy seed of an open-pollinated cultivar and grow out the whole packet. You will notice some subtle variety within plants. Decide what is important to you and allow the plants with those characteristics to produce seed.

Look for sweetness, earliness, size, productivity, color, and resistance to bolting, cracking and insects/disease. After a few years of focusing on a few of these qualities you will have your own improved race of that vegetable. Seeds from plants that have been growing in the same area for many years will have characteristics necessary to withstand local conditions such as drought or heavy soils.